

IN THE CLAIMS:

Please amend Claim 12 as follows:

12. The silicon nitride material of Claim 9, wherein the reactive additive is selected from the group consisting of SiC, TiN, MoSi₂, TiCN and HfO₂ and additives which form mixed crystals with the Si₃N₄.

Please add new Claims 14-23:

—14. A silicon nitride material comprising sintering aids including at least Al₂O₃, and silicon dioxide, in a grain boundary phase, wherein the silicon dioxide in the grain boundary phase and the sintering aids including at least Al₂O₃ in the grain boundary phase have a molar ratio of silicon dioxide to silicon dioxide and sintering aids including at least Al₂O₃ that is > 65% and the oxide nitride content is < 1%.

15. The silicon nitride material of Claim 14, wherein the material further comprises a sintering aid selected from the group consisting of Y₂O₃, Sc₂O₃, rare earth metal oxides, alkaline earth metal oxides.

16. The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is < 20% by volume.

17. The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 0.1 to 17% by volume.

18. The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 3 to 15% by volume.

19. The silicon nitride material of Claim 14, wherein the material further comprises a reactive additive.

20. The silicon nitride material of Claim 19, wherein the reactive additive is selected from the group consisting of TiO₂, WO₃ and MoO₃.

21. The silicon nitride material of Claim 14, wherein the material further comprises an additive that is retained as a disperse phase.

22. The silicon nitride material of Claim 21, wherein the reactive additive is selected from the group consisting of SiC, TiN, MoSi₂, TiCN and HfO₂ and additives which form mixed crystals with the Si₃N₄.

23. The silicon nitride material of Claim 14, wherein the material has a porosity that is <2%.—